



**CALIFORNIA STATE SCIENCE FAIR
2008 PROJECT SUMMARY**

Name(s) Bryan I. Kronenberg	Project Number J1918
Project Title Which Insole Lasts the Longest?	
Abstract Objectives/Goals The objective of this project was to find out which replacement insole stays the thickest under constant compression over five days. Methods/Materials Four major brands of insoles were purchased: Dr. Scholl's, Rite Aid, Spenco, and Life Fitness. A 2x1 inch rectangle was cut from the ball-of-foot area of each insole. The thickness of each insole piece was recorded. Then, the insoles were placed on a hollow, rectangular steel tube with tapped holes. Another tube with non-tapped holes was placed on top of the insoles, then bolted down with ten bolts. Each bolt was tightened to 100 inch-pounds using a torque wrench. After three days, the insoles' thickness was measured, then the blocks were re-set and tightened for another two days. The thickness was recorded again. Results When the blocks were removed and the insoles were allowed to sit for ten minutes so that they could regain part of their lost thickness. When measured, Dr. Scholl's remained the thickest, then Rite Aid, then Spenco, and last was Life Fitness. Conclusions/Discussion My conclusion is that Dr. Scholl's is the best insole. According to my project, they are high quality and last long. However, after about a week, Life Fitness started to spring up again, almost completely reaching its original thickness. However, I do not believe this is too important, since it would take a whole week to regain its thickness.	
Summary Statement My project is about finding which insole lasts the longest under constant compression.	
Help Received Mr. Rodger Thomason provided machinery for project; Mother helped type data table; Both parents drove me to and from Mr. Thomason's house.	